

53, 54, 60, 61, 72-75, 77 and 81-85 are pending and currently under consideration. The remainder of originally filed claims, claims 10-12, 14-38, 42, 47, 48, 51, 52, 55-59, 62-71, 76, 78-80, and 86-101, have been cancelled.

Interview Summary

A telephone interview between the undersigned attorney and the examiner was held on Tuesday, April 29, 2003. Claim 1 was discussed, including clarification of the recited term "film." Support within the specification and use of further support from patents incorporated by reference in the original disclosure for clarification of the meaning of this term were also discussed.

In the Specification

The Specification has been amended to add language from U.S. Patent No. 6,431,695 B1, duly incorporated by reference on Page 11 of the specification as U.S. Patent Application Serial No. 09/099,555. The added material may be found in Column 7, Lines 45-67 and Column 8, Lines 54-58, of the issued patent. No new matter has been added by these changes.

Claim Rejections – 35 USC § 102

Claims 1-7, 13, 39-41, 43-46, 53, 54, 60, 61, 72-75, 77 and 81-85 were rejected under 35 U.S.C. 102(b) and 102(e) as being anticipated by any one of the following: Beaver et al. (U.S. Pat. No. 4,469,601), Hagen et al. (U.S. Pat. No. 4,810,381), or Fitzpatrick et al. (U.S. Pat. No. 5,451,504). The Office Action reiterated the rejections of the previous office action, asserting that these three patents disclose thin layer detection articles having a fluid control layer as a fibrous material through which sample solution freely and uninterruptedly flows. It is stated that it is the fibrous nature of these devices that provides for fluid flow throughout the devices.

In contrast, the detection articles of the present invention provide a polymeric film having surface channels along which a fluid sample flows. Claim 1, as amended, recites a detection article comprising at least one polymeric fluid control film layer having at least one microstructured major surface including a plurality of microchannels therein. As is

made even more clear by the material added to the specification from U.S. Patent No. 6,431,695, which was incorporated by reference in the original disclosure, the detection articles of the present invention are formed from microstructured polymeric film layers. These film layers are thin, generally flexible sheets of polymeric material including a surface topography having individual feature fidelity that is maintained at a very high resolution. Preferably, these microstructured film layers are microreplicated to provide the desired fidelity. As a result, the claimed detection articles include a plurality of microchannels configured for uninterrupted fluid flow along the article and formed in one or more surfaces of the polymeric film layer. A fluid sample then may flow into and along these microchannels through a series of zones to achieve the function of a particular detection article. As set forth on Page 11 of the specification, the fluid control films of the present invention are not fibrous and do not use fibers to provide effective liquid flow along the article.

None of the cited references teach or suggest the use of polymeric film layers having a microstructured surface including a plurality of microchannels formed therein for a detection article, as recited in amended claim 1. The fibrous material of the cited references is also not equivalent to the polymeric film layers having a microstructured surface including a plurality of microchannels of the present invention. Therefore, the cited reference fails to anticipate claim 1 or render it obvious. Applicants thus respectfully request withdrawal of the rejection and allowance of this claim.

The remaining pending claims all depend from allowable claim 1 and thus are allowable for at least the same reasons. Therefore, Applicants respectfully request withdrawal of the rejections and allowance of all pending claims.

Allowable Subject Matter

Claims 8, 9, 49 and 50 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim. Claims 8, 9, 49 and 50 all depend from an allowable base claim, and thus are allowable for at least the same reasons. Therefore, Applicants request withdrawal of the objection and allowance of these claims.

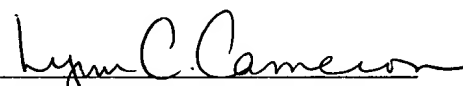
CONCLUSION

All pending claims are now in condition for allowance. A notice to that effect is respectfully requested.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

Respectfully Submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

The following claims have been amended:

1. (Twice Amended) A detection article comprising:
at least one polymeric fluid control film layer having at least one microstructured major surface including a plurality of microchannels therein, the microchannels configured for uninterrupted fluid flow of a fluid sample, the film layer including an acquisition zone wherein portions of the plurality of microchannels draw the fluid sample into the plurality of microchannels through openings in the microchannels at least by spontaneous fluid transport, and a detection zone in uninterrupted fluid communication with the acquisition zone along the microchannels, the detection zone including at least one detection element that facilitates detection of a characteristic of the fluid sample within at least one microchannel of the detection zone.